

REMARKS

Status of claims

The Examiner has rejected claims 1, 2, 6 to 9, and 18 as unpatentable under 35 U.S.C. sec. 103 over Dong et al. (U.S. Patent No. 6,460,378) in argued combination with Yoshida et al. (U.S. Patent No. 4,812,154).

The remaining dependent claims, claims 3 to 5, 10 to 17, 19 and 20, are rejected as unpatentable based Dong and Yoshida in further argued combination with Fabian (U.S Application Publication No. 2003/0140659), Dong et al. (European Patent Application No. 1182173), Shimada et al. (European Patent Application No. 0994077), Fabian et al. (U.S Application Publication No. 2005/0117863) and/or Glodis et al. (U.S. Patent No. 6,105,396).

Claim 1 has here been amended to better express the invention within U.S. claim syntax. Claim 1 as amended recites a method for producing an optical component from synthetic quartz glass. The method comprises feeding a coaxial arrangement comprising an outer jacket tube having an inward bore, an inner jacket tube in the inward bore and having an internal bore, and a core rod in the internal bore. The inner jacket tube has a constriction therein that narrows the internal bore of the inner jacket tube and that provides an abutment in the inner bore. The core rod has a lower face end resting on the abutment within the internal bore in a vertical orientation to a heating zone. The coaxial arrangement is softened in the heating zone zonewise, and elongated so as to obtain the optical component.

Dong et al. teaches a method for making multiple overclad optical fiber preforms. In the embodiments of FIGS. 1a, 1b, 2a and 2b, Dong shows the combination of a core rod 12 and a single outer overclad tube 14 with a constriction in its lower end 34. The core rod 12 is supported on a support rod 36 that is inserted into the bottom of the outer overclad tube or on a quartz spacer disk 46 that rests on the constriction in the outer tube. There is only one outer overclad tube in these embodiments, in contrast to the two jacket tubes recited in claim 1.

In the embodiment of FIGS. 3a and 3b, Dong shows a core rod 12, a first overclad tube 14 and a second overclad tube 56. The outer tube 56 has a constricted lower end that supports arcuate disk 46. The first overclad tube 14 is of constant cross section and rests on the disc 46, as does the core rod 12.

Dong does show a constriction in a tube and a core rod, but in all embodiments that constriction is limited to the outer tube of a rod-in-tube assembly. Either the assembly is a single tube with a rod in it where the tube has a constriction, or the assembly is an outer tube with a constriction surrounding an inner tube with no constriction and a core rod inside of that inner tube.

Only the outer tubes in Dong have a constriction. Dong does not suggest a constriction of the inner jacket tube 14 where multiple overclad jacket tubes are present. Using Dong, one skilled in the art would be motivated only to make a constriction in the outermost tube. In contrast, claim 1 requires a constriction in an inner jacket tube that is surrounded by an outer jacket tube.

Yoshida et al. teaches a rod-in-tube (RIT) method for producing glass preforms. The Yoshida method recites inserting a glass rod 1 into one end of a glass tube 2 into a mating

relation with a constriction 2a in the glass tube 2. See, e.g., Yoshida claim 1.

The Yoshida method can be distinguished from the method of claim 1 because it shows a single glass jacket tube instead of the outer jacket tube, inner jacket tube and core rod recited in claim 1. As with Dong, the Yoshida reference teaches a constriction only of the outermost jacket tube. Yoshida therefore does not suggest the method as claimed.

The remaining references mentioned in the office action are cited purely for teachings of dependent features that do not impact on the allowability of claim 1.

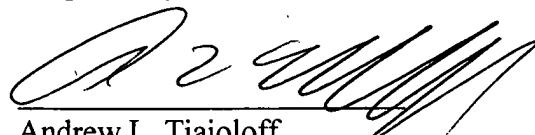
Claim 1 therefore recites a method that is not suggested by the cited prior art, and reconsideration of the rejection thereof is respectfully requested.

Claims 2 to 20 depend directly or indirectly from claim 1 and therefore distinguish therewith over the cited prior art.

All objections of the Examiner having been addressed, and all claims having been shown to distinguish over the prior art in structure, function and result, formal allowance is respectfully requested.

Should any questions arise, the Examiner is invited to telephone attorney for applicants at 212-490-3285.

Respectfully submitted,



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